2003 AASHTO NATIONAL VALUE ENGINEERING CONFERENCE

Awards Luncheon

July 17, 2003

July 15-18 ● Wyndham Harbour Island Hotel ● Tampa, FL

Most Innovative Proposal
During Engineering

US 82 Widening—US 259 To IH 30

Texas
Department of Transportation

US 82 is designated as part of the Texas Trunk System providing a transportation corridor through the cities of Lubbock, Wichita Falls, Paris, and Texarkana. This section of the current facility is a two-lane roadway with limited shoulders for approximately 11 miles. The proposed project will provide four lanes (two in each direction) with a continuous flush median and 10 foot outside shoulders. The project proposes to utilize a portion of the abandoned Texas & Pacific Railway right of way and provide a bicycle and pedestrian trail adjacent to the proposed highway improvements. Important considerations included location and design concepts through the city of DeKalb, location and position of the highway and the new trail, and right of way requirements. The Value Engineering saved $1.5 million on the $25 million project.

Most Value Added Proposal
During Engineering

Route 1 & 9 Truck / Route 7

New Jersey
Department of Transportation

Route 1&9T is a major artery that handles port traffic as well as local and commuter traffic within the northern New Jersey and New York City region. The current project proposes to realign Route 1&9T and temporarily reconfigure the connections to the Route 7 Bridge over the Hackensack River. The Value Engineering eliminates the temporary roadway construction and bridge widening, avoids rework, improves the construction staging, reduces the construction duration, and minimizes road user costs. The Value Engineering saved $13.6 million on the $188.3 million project.

Most Value Added Proposal
During Process

Value Analysis Study for the District 11 Right of Way Decertification Process

California
Department of Transportation

The process to decertify State property for sale to the public currently takes approximately 20 months, and requires coordination between Right of Way and Design with input from a number of other functions. The team was charged with finding ways to reduce the timeline for decertification, and defining roles and responsibilities. Management accepted nine Value Engineering team recommendations that shaved nearly 7 months off the timeline for the process. The Value Engineering changes resulted in a 33% performance improvement and 95% value improvement over the previous process, particularly with respect to maintaining transportation system integrity and ensuring consistency and fairness.

Most Innovative Proposal
During Process

I-90 & Collector-Distributor System, US 395 North Spokane Corridor

Washington State Department of Transportation

The North Spokane Corridor (NSC) Project is a 10.4-mile, $1.4 billion, multi-modal transportation facility that connects I-90 to US 395. The I-90 and C-D system, originally estimated at $586 million, is one of the project segments. Innovations for this study included design visualizations, a scale model of the project with contours, a Design Advisory Group consisting of a number of expertise groups, and an extended (24 month) VE study. Positive results through the effort included improved design schemes, profile changes of up to 50 feet, reduced city park impacts, preservation of existing ramp structures, increased level of service and safety, and increased acceptability to the public because of the opportunity provided for design input throughout the extended study process.

Most Value Added Proposal
During Construction

412-99, ATB US-20 20.921

Ohio
Department of Transportation

The project was to completely remove and rebuild an eight span continuous steel girder and concrete deck bridge over the Ashtabula River in the small northeastern Ohio city of Ashtabula. The Value Engineering changed the superstructure from steel girders to pre-cast concrete beams, added one more beam line, redesigned the bridge deck, and changed the substructure by adding one pier, redesigning all piers and making them more aesthetically pleasing, and eliminating the drill shafts. The Value Engineering saved $962,744 from the original contract price of $10,699,682.

Most Innovative Proposal
During Construction

SR 60A (Van Fleet Dr.) from Agricola Road (CR555) to Broadway Avenue

Florida
Department of Transportation
District One

The project was to construct two bridge structures with a center island consisting of MSE walls between them. One structure crossed the CSX railroad and an abandoned spur line. The other structure crossed Polk Street. The center island separated the West Bartow Front Porch Community from the rest of town. The Value Engineering provided for a single structure that does not go over the abandoned spur line. It eliminated the center island thus reconnecting the community with the town. The Value Engineering Change Proposal became a Design/Build portion within a conventional low bid project. The Value Engineering saved approximately $77,876 and 125 days.

Honorable Mention Award Winners

Honorable Mention

Most Innovative During Engineering

4th Value Analysis Study for the San Francisco-Oakland Bay Bridge (SFOBB) East Bay Crossing Replacement

California
Department of Transportation

The SFOBB carries 280,000 vehicles per day. The project proposes to upgrade the level of seismic protection by replacing the structure. The Value Engineering included the use of innovative construction methodology by using "roll-in/roll-out" equipment, using a "Mock Bid" to help study and improve the biddability and constructability of the contracts, and included an unusual contract delivery system where the contractor designs and builds the temporary structures. The Value Engineering allows construction to be completed 2-3 years earlier than expected, decreases the duration of full bridge closures and provides for more contractor access.

Honorable Mention

Most Value Added During Engineering

Ventura 101 Improvements—
Mussell Shoals to La Conchita

California
Department of Transportation

This project proposes to improve safety by upgrading the existing divided expressway facilities on State Route 101. Proposed improvements include closing median openings, upgrading ramp connections and constructing a pedestrian crossing. The Value Engineering eliminated the vehicle bridge undercrossing and saved $14.8 million on the $28 million project.

Honorable Mention

Most Value Added During Process

VE Study of Major Projects Program

Wisconsin Department of Transportation

A Value Engineering Study was undertaken to independently review selected projects in the department's Major Projects Program and make recommendations on ways to reduce the cost of existing and proposed major projects. Generalized recommendations were provided in areas of pavement design, roadway design elements, interchange design, bridge design and other miscellaneous areas. The Value Engineering provided 17 approved recommendations and saved an estimated $125 million on existing projects.

Honorable Mention

Most Value Added During Engineering

SR 509 / I-5 Corridor Completion Project

Washington State Department of Transportation

The purpose of the Value Engineering services was to review the storm water and staging aspects of the project. The Value Engineering reduced right-of-way acquisition and storm water management facility sizes by designing storm water control and treatment based only on additional impervious surfaces. Other recommendations included the implementation of the Des Moines Creek Basin Plan and construction completed in five stages in lieu of six. The Value Engineering saved $65.1 million on the $102 million project and reduced the construction duration by eleven months.

Honorable Mention

Most Value Added During Engineering

Turnpike Interchange Improvements at Commercial Boulevard

Florida
Department of Transportation
Turnpike Enterprise

The original design included a slip ramp and a three-lane ramp toll plaza, which would require expensive golf course right-of-way and extensive canal relocation. The Value Engineering eliminates the additional toll plaza and required right-of-way and provides Electronic Toll Collection (ETC) only service. The Value Engineering saved $13.1 million on the $15.3 million project and accelerated the project schedule by 18 months.

Honorable Mention

Most Value Added During Engineering

SR 25 from Boggy Marsh Road to SR 50 WB Ramps

Florida
Department of Transportation
District Five

The project converts 11 miles of an existing 4-lane highway to a 6-lane highway. The Value Engineering minimized the right-of-way impacts by shifting the alignment of the typical section to utilize more of the existing right-of-way. In addition, a sidewalk will be provided on one side only along 6 miles of fenced State Park. The Value Engineering saved $20 million on this $80 million project.

Presented by the
2003
AASHTO
Value Engineering Task Force